

119528

S16583 WAS NOT ASSIGNED TO ANY PAGE

POB CONTAINING CAPACITORS, TRANSFORMERS AND APPROXIMATE LOCATIONS

1. Capacitor - Building 12 - basement, north and west of Electric Shop
2. Capacitor - Building 12 - basement, north and west of Electric Shop
3. Capacitor - Building 12 - basement, north and west of Electric Shop
4. Capacitor - Building 10 - basement, north of #2, white water tank, west of Electric shop.
5. Capacitor - Building 1 - basement, north of #2, white water tank, west of Electric Shop.
6. Capacitor - Building 3 - basement - west of maintenance, pipe shop.
7. Capacitor - Building 3 - basement - west of maintenance, pipe shop.
8. Capacitor - Building 3 - basement - west of maintenance, pipe shop.
9. Capacitor - Building 3 - basement - N.W. 14 ft. Hydrapulper
10. Capacitor - Building 3 - basement - N.W. 14 ft. Hydrapulper
11. Capacitor - Building 3 - basement - N.W. 14 ft. Hydrapulper
12. Capacitor - Building 3 - basement - south wall near #4 Blend Chest.
13. Capacitor - Building 3 - basement - Aisle between #1 & #6 Chests
14. Capacitor - Building 2 - basement - north of #3 Stock Chest
15. Capacitor - Building 9 - basement - west of #3 Machine chest, behind panel
16. Capacitor - Building 12 - basement - on top shelf north of electric shop.
17. Capacitor - Building 4 - East of stairway - Basement (Base of stairs)
18. Capacitor - Building 4 - East of stairway - Basement (Base of stairs)
19. Capacitor - Building 5B - Main floor, south wall
20. Capacitor - Building 6 - Old turbine room, east wall, main floor
21. Capacitor - Building 4 - Basement - south wall
22. Capacitor - Building 4 - Basement - east wall above #48
23. Capacitor - Building 4 - Basement - east wall - high on wall
24. Capacitor - Building 9 - Basement - (North end) East of Broke slusher Control Panel
25. Capacitor - Building 9 - Basement - (North end) East of Broke Slusher Control Panel.

26. Capacitor - Building 9 - Basement, under No. 3 Machine Rewinder
27. Capacitor - Building 9A Basement East of E.G. Limit Amp Control Panel
28. Capacitor - Building 9A Basement East of scales above 480 Panel
29. Capacitor - Building 9A Basement, south of supercal, west of showers.
30. Capacitor - Building 9A Basement, Wall outside first aid room
31. Capacitor - Building 9C Basement in south wall just before entering 9C
32. Capacitor - Building 9C Basement in south wall just before entering 9C
33. Capacitor - Building 15 Basement north wall behind beam
34. Capacitor - Building 5 Main floor west of ash collector - on railing
35. Capacitor - Building 5 Main floor north of #34 - On railing (outside)
36. Capacitor - Building 5 Main floor, south & east of 38 - Boiler Plant
37. Capacitor - Building 4 Northwest #4 Machine Jordan & Saveall ( Small Alcove)
38. Capacitor - Building 4 Same room, main floor as 37, south of Beater Room
- 39.
40. Capacitor - Building 3 Main Floor - North wall, north of #13 stock chest
41. Capacitor - Building 3 Above Lasco, high on west wall, main floor
42. Capacitor - Building 11 Main floor - West wall, north of #2 Saveall
43. Capacitor - Building 15 Main Floor - North wall between supercalenders.
44. Transformer - Building 12, North of electric shop basement.
45. Transformer - Building 3 Basement north of #3 Cloudy Water Pump (west of pipe shop) *75 KVA*
46. Transformer - Building 3 Basement north of #3 Cloudy Water Pump (Beside #45) *75 KVA*
47. Transformer - No. 1 Basement - East of polymer make-up. *// 20 KVA*
48. Transformer - Basement, Bldg. 4 West of #4 Special Water tank (unused)  
*Reported not there 75 KVA - 3*
49. Capacitor - Outdoors - Pump room building (#3 Well)
- 50.

Company Name General Electric

Manufacturing Operation Transformer Division

X COST OF OPERATING INSPECTION PROGRAM

(Complete 1 for each type of Manufacturing Operation)

1. Does your company currently maintain a program of regular inspection of transformers and capacitors for leakage, proper operation etc. (This program may be conducted for any purpose, including regular maintenance needs so long as it is likely to reveal developing leak problems at an early stage). (Yes X) (No       )
2. With what frequency are transformers checked under this program: Once every 12 months
3. With what frequency are capacities checked under this program: Once every 12 months
4. Do you keep written records of the performance or results of these inspections (Yes X) (No       )
5. What is the approximate manpower involved in these inspections: 126 manhours per year
6. What is the approximate cost to your company of this inspection program? \$2320 \$/year
7. What is your estimate of the total manpower and cost that would be necessary under a program that required daily inspection of all fluid containing units.  
\*        manhours per year  
\$        per year
8. How much manpower and cost would be added if this inspection program had to include a written record of the inspections.  
2912 manhours per year  
\$ 43,180 per year.

\* CAN NOT BE DONE IN AN 8 HOUR DAY.

NATIONAL COUNCIL OF THE PAPER INDUSTRY FOR AIR AND STREAM IMPROVEMENT, INC.  
260 MADISON AVE. NEW YORK, N.Y. 10016 (212) 532-9000

August 1, 1980

*Just hand written to get it done*  
*info makes*  
*Jim*  
Russell O. Blosser  
Technical Director  
(212) 532-9001

To: Corporate Correspondents  
Regional Managers

From: Russell O. Blosser *ROB*

Subject: Distribution of Forest Products Industry PCB  
Transformer and Capacitor Survey

Last week Dr. Gellman alerted you to the distribution of the "Forest Products Industry PCB Transformer and Capacitor Survey". You have already been advised of the urgency attached to the timely assembly of available material. Please note the desired survey form return mailing date of August 15.

There will be other information needs associated with the product contamination risk analysis which we will be asking for your assistance at a later date.

ROB:DLR  
ENCS.

NATIONAL COUNCIL OF THE PAPER INDUSTRY FOR AIR AND STREAM IMPROVEMENT, INC.  
260 MADISON AVE. NEW YORK, N.Y. 10016 (212) 532-9000

FOREST PRODUCTS INDUSTRY PCB TRANSFORMER AND CAPACITOR SURVEY

I INTRODUCTION

This survey is designed to rapidly obtain from the various sectors of the forest product industry (pulp, paper and paperboard manufacture, paper and board converting, and solid wood products manufacture) readily available information on industry use of electrical system transformers and capacitors containing PCB that might be subject to the regulations recently proposed by the Food & Drug Administration (FDA) for the purpose of preventing contamination of food-and feed-packaging materials and subsequent or direct contamination of food and feedstuffs themselves.

The forest products industry through its API/NFPA Environmental and Health Program is currently developing a position on this subject designed to achieve a workable regulatory product that meets FDA's objective with the least impact on this industry. Vital to the development of that position is the rapid collection of the information requested in this survey form. It covers the areas already identified for you in our Industry Action Alert sent to you on July 25, including the (a) extent of use and physical location in potentially affected industry facilities of such transformers and capacitors, (b) measures already taken to prevent possible contamination of product by leakage or storage of PCB from such equipment, (c) company cost experience in containing such equipment, rerouting of sewers and moving equipment to more remote locations, etc., (d) company cost experience in replacing, retrofilling and conducting periodic inspections of such equipment, and (e) company knowledge of time required for modifying and replacing present equipment, considering engineering and construction requirements as well as replacement equipment and material availability from vendors.

The survey form is being distributed on August 1 with the urgent request that the information requested be mailed back by August 15. This is not an absolute cutoff date, but simply reflects the industry time schedule under which a consultant/contractor working with this information will be operating to develop a product contamination risk analysis as well as an estimate of the cost and possible economic impact of several alternative regulatory system options for the forest products industry. These two studies will then be used for development of the industry position on FDA's regulatory proposal.

You are asked to avail yourself of the API Telecopier terminal at 260 Madison Ave. for rapid return of information to this office. It is identified as (212) 689-2628. The usual confidentiality protection will be provided for the technical information submitted to NCAST. Based in part on the response to this request, other information will be solicited soon to assist in the product contamination risk analysis as well.

II COMPANY IDENTIFICATION

Company Name \_\_\_\_\_

Person Completing This Form \_\_\_\_\_

Location \_\_\_\_\_

Telephone No. \_\_\_\_\_

Company Name \_\_\_\_\_

### III    EXTENT OF FOOD PACKAGING MANUFACTURING OPERATIONS WITH PCB TRANSFORMERS AND CAPACITORS

This question is intended to identify both (a) the total number of plants, and (b) the number which if PCB transformers and capacitors were banned would be potentially affected. The survey concentrates on plants in the forest products industry which are engaged in the manufacturing of materials, some portion of which is or might be used in food or feedstuff packaging or whose products might logically be used in such packaging.

The pulp and paper manufacturing facilities to be considered here would include but not necessarily be limited to those which manufacture (a) kraft paper and linerboard used for boxes or multiwall bags, (b) corrugating medium, (c) virgin fibre food board, (d) waste paperboard, (e) glassine, (f) tissue destined for food wrap, (g) white papers used for bags or food wrapping, (h) molded products, and (i) market pulps usable for such products.

Operations in the converting sector would include but not be limited to carton plants, flexible packaging plants and the like, where some or all of the product is used for food or feedstuff packaging. The packaging product may include the use of plastic film.

Wood products to be considered would include but not necessarily be limited to plants which manufacture wooden crates, cartons, baskets, or barrels for containing food or feedstuffs and/or raw materials from which such containers are constructed.

Also included are operations which manufacture food or feedstuffs from wood byproducts. These would include, but not be limited to, yeast production from spent pulping liquors, production of feed additives from pulping liquors and special pulps destined for use in cellulosic additives.

Potentially affected plants are any plants containing transformers or large capacitors (over 3 lb dielectric fluid capacity) anywhere on the plant premises where all such units are not known by actual chemical analysis of the dielectric fluid to contain less than 50 ppm of PCBs. Restated, this means that any plant with transformers or large capacitors must be considered to be a potentially affected plant unless it is known by actual analysis that all dielectric fluids contain less than 50 ppm of PCB.

The information solicited here will be used to generate the breadth of the impact of the proposed regulation and identify those segments which would be most severely impacted. It therefore requests at the company level the total number of plants in each of the identified manufacturing categories. The second question then addresses the total number engaged in food or feed packaging manufacture and those where it is known by analysis of fluids that no PCB transformers or capacitors exist.

Company Name \_\_\_\_\_

<u>Manufacturing Operation</u>	<u>Total No. of Plants in the Company</u>	<u>Food or Feedstuff Product Operations</u>	<u>Total No.</u> <u>No. with no PCB Transformers or Capacitors</u>
Integrated Pulp and Paper Mills			
Bleached Kraft			
Unbleached Kraft			
Bleached Sulfite			
Unbleached Kraft and Semichem			
Stand Alone Semichem			
Converting Plants Located at Integrated Pulp and Paper Mills			
Nonintegrated Virgin Fibre Mills			
With On-site Converting			
Without On-site Converting			
Nonintegrated Secondary Fibre			
With On-site Converting			
Without On-site Converting			
Stand Alone Converting Operations (Carton plants, flexible paper packaging plants, etc.) NOT Associated with a Pulp or Paper Mill			
Molded Pulp Products Plants			
Plants Making wooden Food Containers			
Plants Making Lumber for Wooden Food Containers			
Human Food Additives from Wood Products			
Animal Feed Additives from Wood Products			
Other _____			



Company Name \_\_\_\_\_

IV    NUMBER OF TRANSFORMERS AND CAPACITORS, THEIR PROXIMITY TO THE  
MANUFACTURING OPERATIONS AND PROTECTIVE MEASURES TAKEN FOR  
PRODUCT PROTECTION IN REPRESENTATIVE MANUFACTURING OPERATIONS

The information solicited in Table IV will be used to identify the total number of transformers and large capacitors containing dielectric fluid on a plant-by-plant basis in the various manufacturing segments of the industry that produce material that is used in food or feedstuff packaging. It goes further to identify the portion of transformers and large capacitors that would require replacement if those containing more than 50 ppm PCB in the dielectric fluid were to be replaced.

The information solicited in Table IV also addresses the extent to which protective measures have already been taken to eliminate possible contamination of the manufactured product. It goes further to solicit your judgement, depending on the location of PCB-containing capacitors and transformers with respect to the manufacturing process, as to the potential for product contamination if no corrective action were taken. To be considered in this judgement, for example, would be the likelihood that (a) capacitor leaks of significance could occur, resulting in possible product contamination without a motor failure, or (b) transformer leaks would not enter sewers or streams reused in process or result in direct contamination of product.

The following definition of terms and instructions are crucial to your understanding of the information being sought:

Plant Type means the type of manufacturing operation carried out at this location. Examples are given in Section III.

Capacity means the nominal production capacity of the plant.

Units should reflect the appropriate unit of measure for the plant capacity. Tons per day based on capacity as reported to API may be used for pulp and paper mills. No. of containers, square feet, or any common reporting unit may be used for converting plants. Use your normal reporting units but make sure we understand them.

Transformers means only those transformers which use a liquid dielectric fluid. Air cooled types are not to be counted if they contain no liquid dielectric.

kVA means kilo volt amperes.

Large Capacitors means only those capacitors which contain more than 3 lb. (approximately 1 quart) of dielectric fluid.

Protective Vault or Vault means an enclosing structure designed to provide for plant safety protection or equipment protection. Such a structure would generally be of substantial construction (steel or concrete) and would generally be totally enclosed, fireproof, and designed to contain any leaked fluid.

Process Building means any structure used to enclose any part of the manufacturing process including but not limited to (a) raw material storage, (b) manufacturing equipment vessels or processes, (c) intermediate or final product storage, (d) shipping facilities, and (e) utility structures (power houses, etc.) which engaged in the interchange of any physical substance (e.g. steam or recycled condensate) with any of the foregoing areas.

Company Name \_\_\_\_\_

Secondary Containment means impervious dike and floor structures or drip pans capable of catching and holding any leakage of fluid from transformers or capacitors.

P = PCB Fluid means that the units reported under this heading contains a "PCB fluid". By EPA definition, a fluid containing more than 500 ppm of PCB compounds is a "PCB fluid." Such units are generally known to contain PCB fluids by manufacturers' information or company records.

C = Contains Contaminated Fluid means that the units reported under this heading would fit into one of the following classifications: (a) the fluid has been analyzed and found to contain more than 50 ppm of PCB but less than 500 ppm PCB, (b) the original PCB fluid has been drained and replaced with a non-PCB fluid, or (c) nothing is known about the PCB content of the fluid. CAUTION: Because of manufacturing practices during the initial phase-out of PCB use in electrical equipment it is not safe to assume anything about the PCB content of the fluids in equipment purchased since that phase-out. Unless you have actual analytical data to the contrary, it is best to assume that the fluid is contaminated.

N = Non-PCB Fluid means that the units reported under this heading have had their fluid sampled and analyzed and have been shown to contain less than 50 ppm of PCB. Only units with such analysis should be reported under this heading.

Please fill in, under the appropriate heading, the number of units of each type, size and PCB content you have located in areas matching the description given in the left hand column.

Company Name \_\_\_\_\_ Plant Location \_\_\_\_\_

COMPLETE ONE FOR EACH MANUFACTURING OPERATION

TABLE IV NUMBER OF ELECTRICAL ITEMS, LOCATIONS AND PROTECTIVE MEASURES

Plant Type \_\_\_\_\_ Capacity \_\_\_\_\_ Units of Capacity \_\_\_\_\_

Transformer or Capacitor Location	Number of Transformers																					Number of Large Capacitors		
	Less than 500 kVA			500- 1000 kVA			1000- 2000 kVA			2000- 3000 kVA			3000- 4000 kVA			4000- 5000 kVA			More than 5000 kVA			P	C	N
	P	C	N	P	C	N	P	C	N	P	C	N	P	C	N	P	C	N	P	C	N			
1. In a protective vault																								
2. In a process building with secondary containment (dikes or drip pans)																								
3. In a process building, not in a vault, no secondary containment, not likely to cause product contamination																								
4. In a process building not in a vault, no secondary containment, could cause product contamination																								

\* DISREGARD - CHANGED TO ITEM #7

5

16593

Company Name \_\_\_\_\_ Plant Location \_\_\_\_\_

TABLE IV NUMBER OF ELECTRICAL ITEMS, LOCATIONS AND PROTECTIVE MEASURES  
(Continued)

Transformer or Capacitor Location	Number of Transformers																					Number of Large Capacitors		
	Less than 500 kVA			500- 1000 kVA			1000- 2000 kVA			2000- 3000 kVA			3000- 4000 kVA			4000- 5000 kVA			More than 5000 kVA					
	P	C	N	P	C	N	P	C	N	P	C	N	P	C	N	P	C	N	P	C	N	P	C	N
5. Not in a process building with secondary containment (dikes or drip pans)																								
6. Not in a process building; no secondary containment; not likely to cause product contamination																								
7. Not in a process building. No secondary containment; possible product contamination																								

P = contains PCB fluid      C = contains contaminated fluid      N = contains non-PCB fluid  
(See definitions in the attached instruction)

V COMPANY COST EXPERIENCE IN PROVIDING DIELECTRIC FLUID  
COLLECTION OR CONTAINMENT FACILITIES (DIKING OR DRIP  
PANS) FOR TRANSFORMERS AND CAPACITORS

Company Name \_\_\_\_\_

This part solicits company cost experience, either actual or those based on refined engineering cost estimates for providing dielectric fluid containment facilities for either transformers or capacitors. The information will be used to estimate the cost of alternate protective measures, short of replacement of PCB containing transformers and capacitors.

1. The company has \_\_\_\_\_, has no \_\_\_\_\_ cost data on impervious containment facilities for transformers or capacitors.

2. The cost for impervious floors and dikes for containing transformer fluids was (use more than one sheet if necessary).

<u>Size of Transformer</u>	<u>Approximate Design Fluid Volume</u>	<u>Actual Cost</u>	<u>Engineering Estimate</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

3. The cost for drip pans capable of holding the entire contents of a capacitor was (use more than one sheet if necessary).

<u>Size of Capacitor</u>	<u>Actual Cost</u>	<u>Engineering Estimate</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Company Name \_\_\_\_\_

4. Company cost experience for providing the following containment facilities at manufacturing plants producing food packaging or materials destined for used in food and feed stuff packaging. The objective of this question is to determine actual cost experience for providing contaminant facilities for all the transformers or capacitors at a given type of manufacturing operation, e.g. converting operation, non-integrated mill etc.

(Use more than one sheet if necessary)

<u>Manufacturing Facility</u>	<u>Cost of Transformer Containment Facilities</u>		<u>Cost of Drip Pans Etc. for Capacitors</u>	
	<u>Actual</u>	<u>Cost Estimate</u>	<u>Actual</u>	<u>Estimate</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Company Name \_\_\_\_\_

VI COMPANY COST EXPERIENCE IN REPLACING  
PCB TRANSFORMERS AND CAPACITORS

This part solicits company cost experience in (a) replacing PCB transformers and capacitors, (b) storage and disposition of replaced equipment, and (c) attendant costs in lost production or manufacturing time. (Use more than one sheet if necessary.)

1. Transformer Replacement Cost

<u>Transformer Size</u>	<u>Equipment Replacement Cost of Equal Capacity</u>		<u>Removed Equipment and Fluid Storage and Disposal Cost</u>	
	<u>Actual</u>	<u>Estimated</u>	<u>Actual</u>	<u>Estimated</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

\* *CODES AND REPLACEMENT COSTS ARE NOT NECESSARY*

2. Cost of Production or Manufacturing Loss During Transformer Replacement. (Describe the amount of downtime, type of and production loss and its value if such occurred during the replacement of PCB containing transformers, using more than one sheet if necessary).

\_\_\_\_\_

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\_\_\_\_\_

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\_\_\_\_\_

Company Name \_\_\_\_\_

3. Company cost experience for replacing PCB containing transformers at manufacturing facilities. The objective of this question is to determine actual cost experience for replacing all PCB transformers at a given type of manufacturing operation, e.g., converting non-integrated mill, etc., (use more than one sheet if necessary).

<u>Manufacturing Facility</u>	<u>Number Replaced</u>	<u>Total Cost for Replacing PCB Transformers to Include Equipment and Fluid Disposal Costs</u>	
		<u>* Actual</u>	<u>Estimated</u>
<u>1000000000</u>	<u>4</u>	<u>36 100</u>	

4. Capacitor Replacement Cost

<u>Capacitor Size</u>	<u>Equipment Replacement Cost</u>		<u>Removed Equipment Disposal Cost</u>	
	<u>Actual</u>	<u>Estimated</u>	<u>Actual</u>	<u>Estimated</u>
<u>1000000000</u>	<u>2000</u>			<u>50000</u>
<u>1000000000</u>	<u>10000</u>			



Company Name \_\_\_\_\_

5. Company cost experience for replacing PCB containing capacitors, (more than 3 lbs. PCB) at manufacturing facilities. The objective of this question is to determine actual cost experience for replacing all capacitors at a given type of manufacturing operation, e.g., converting, non-integrated mill, etc.

<u>Manufacturing Facility</u>	<u>Number Replaced</u>	<u>Total Cost for Replacing Capacitors to Include Equipment Disposition</u>	
		<u>Actual</u>	<u>Estimated</u>
_____	<u>37</u>	<u>14.2</u>	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

6. Cost of Production or Manufacturing Loss During Capacitor Replacement. (Describe the amount of downtime, type of and production loss if such occurred during the replacement of PCB containing capacitors), using more than one page if necessary).

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\_\_\_\_\_

\_\_\_\_\_

Company Name \_\_\_\_\_

VII. COST OF RELOCATING ELECTRIC EQUIPMENT  
OR PROCESS DRAINS

This part solicits information on company experience with (a) relocating transformers and capacitors to areas not likely to result in product contamination and (b) reroutouting process drains so as to prevent the entry of lost fluids into process liquid recycle streams along with actual or estimated costs for achieving these actions. Use more than one sheet if necessary..

1. Transformer Relocation Experience

<u>Transformer Size</u>	<u>No. of Transformers</u>	<u>Actual Cost</u>	<u>Engineering Estimate</u>
<i>Does Not Apply</i>			

2. Capacitor Relocation Experience

<u>Capacitor Size</u>	<u>Approx. Linear Feet of New Drain Constructed</u>	<u>Approx. Size of Drain (Dia. of Pipe or Width of U-Drain)</u>	<u>Actual Cost</u>	<u>Engineering Estimate</u>
<i>Does Not Apply</i>				

3. Process Drain Rerouting Experience

<u>Project No.</u>	<u>Approx. Linear Feet of New Drain Constructed</u>	<u>Approx. Size of Drain (Dia. of Pipe or Width of U-Drain)</u>	<u>Actual Cost</u>	<u>Engineering Estimate</u>

Company Name \_\_\_\_\_

4. Cost of Production or Manufacturing Loss During Transformer Relocation. (Describe the amount of downtime, type of and production loss and its value if such occurred during the relocation of PCB containing transformers, using more than one sheet if necessary).

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5. Cost of Production or Manufacturing Loss During Capacitor Relocation. (Describe the amount of downtime, type of and production loss if such occurred during the relocation of PCB containing capacitors), using more than one page if necessary).

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6. Cost of Production or Manufacturing Loss During Process Drain Rerouting. (Describe the amount of downtime, type of and production loss and its value if such occurred during the rerouting of process drains carried out to prevent the entry of leaks of dielectric fluid.

*NO DRAINS NEED TO BE REROUTED*

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Co. Name \_\_\_\_\_ Plant Location \_\_\_\_\_  
Plant Name, if any \_\_\_\_\_

VIII COMPANY EXPERIENCE IN RETROFILLING PCB TRANSFORMER FLUID

(Please copy and complete this sheet as many times as needed to report on each retrofilled transformer)

1. Has your company attempted to remove PCB fluids from transformers and replace it with a non-PCB fluid or had such service performed by a contractor (Yes\_\_\_) (No X)
2. Did this action include intentional steps to minimize the residual PCB fluid left in the transformer (such as flushing with solvent or use of a system designed to capture PCBs) (Yes\_\_\_) (No\_\_\_)
3. Was the fluid analyzed after the transformer had been placed back in service (Yes\_\_\_) (No\_\_\_)
4. What was the PCB content of the fluid shown by this analysis ( \_\_\_\_\_ ppm PCB)
5. Please describe the unit on which this retrofill was attempted

With PCB fluid in place

With new fluid in place

Power Rating \_\_\_\_\_ kVA \_\_\_\_\_ kVA  
Primary Voltage \_\_\_\_\_ Volts \_\_\_\_\_ Volts  
Secondary Voltage \_\_\_\_\_ Volts \_\_\_\_\_ Volts  
Dielectric Fluid Capacity \_\_\_\_\_ gallons  
Volume of solvent used for flushing \_\_\_\_\_ gallons

6. Total cost to your company for this service (including disposal of PCB and solvent flush and any new capacity installed to replace downgraded capacity occasioned by the use of non-PCB fluids in this unit \$ \_\_\_\_\_

*REMOVED FROM FILE - TOP SECRET*

*TOP SECRET - FRODO BAGGINS*  
*TOP SECRET - FRODO BAGGINS*

Company Name \_\_\_\_\_

IX DEFINITION OF A REASONABLE REPLACEMENT  
TIME FOR TRANSFORMERS AND CAPACITORS

The questions addressed in this part are designed to determine whether there is sufficient company experience to indicate the adequacy of supply resulting from regulatory action taken which would require wholesale replacement of PCB containing transformers and capacitors within a short and fixed time frame such as 180 days. The questions go further to search out your estimate of a phased replacement carried out during normal shutdown periods should extensive replacement be a requirement.

1. Has Your Company Ever Been Quoted Delivery Times for Non-PCB Replacement Transformers 13
2. Range in Size of Transformers (KVA) 1000-1500
3. Delivery Time Quoted 1-2 weeks
4. How Many Transformers Did You Specify When Requesting This Delivery Time Quotation 1
5. Have You Received Any Information as to the Total Delivery Time That Would Be Required if You Were to Replace All PCB Transformers at a Given Plant or Within the Company - (yes     ) (no ✓)  
(total delivery time     )  
(total number involved     )
6. Can You Obtain Access to a Lawfully Permitted Disposal Operation for PCB Equipment or Fluid Within 30 Days of Removal - (yes ✓) (no     )

The following questions solicit estimates of installation time for replacement or retrofitting of equipment once the replacement items are on-site. The information you report can be limited to those situations where estimates have already been compiled and should take into account installation (or changeover) during normal shutdown periods so as not to interfere with manufacturing operations. See Section III for manufacturing operation description terms.

7. Estimates of the Time to Install Replacement Transformers -

<u>Manufacturing Operation</u>	<u>Approximate No. of Transformers</u>	<u>Size Range KVA</u>	<u>Estimated Installation Time</u>
	<u>12</u>	<u>700-1000</u>	<u>72 hrs</u>

Company Name \_\_\_\_\_

8. Estimates of the Time to Retrofill Transformers -

<u>Manufacturing Operation</u>	<u>Approximate No. of Transformers</u>	<u>Size Range KVA</u>	<u>Estimated Retrofill Time</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

9. Estimates of the Time to Replace Capacitors -

<u>Manufacturing Operation</u>	<u>Approximate No. of Capacitors</u>	<u>Estimated Installation Time</u>
_____	37	X _____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Company Name \_\_\_\_\_

Manufacturing Operation \_\_\_\_\_

X COST OF OPERATING INSPECTION PROGRAM

(Complete 1 for each type of Manufacturing Operation)

1. Does your company currently maintain a program of regular inspection of transformers and capacitors for leakage, proper operation etc. (This program may be conducted for any purpose, including regular maintenance needs so long as it is likely to reveal developing leak problems at an early stage).  
(Yes ✓) (No \_\_\_\_\_)
2. With what frequency are transformers checked under this program: Once every Electrician  
Monthly
3. With what frequency are capacities checked under this program: Once every \_\_\_\_\_
4. Do you keep written records of the performance or results of these inspections (Yes ✓) (No \_\_\_\_\_)
5. What is the approximate manpower involved in these inspections: \_\_\_\_\_ manhours per year
6. What is the approximate cost to your company of this inspection program?  
1,200 \$/year + Waste treatment Card
7. What is your estimate of the total manpower and cost that would be necessary under a program that required daily inspection of all fluid containing units.  
\_\_\_\_\_ manhours per year  
\$ \_\_\_\_\_ per year cannot be all inspected
8. How much manpower and cost would be added if this inspection program had to include a written record of the inspections.  
112 manhours per year  
\$ 43,680 per year.

*My Dept. inspect Cap & Transformers  
1 per month.*

*8 hrs / month - X 12*

*\$7.50 / hr*

*30 electricians  
96  
21*

720

*1602  
720*

Be-1/12/71  
JIM HARRIS  
CALL GREG  
STATE OF MICHIGAN  
This meeting - Dec

NATURAL RESOURCES COMMISSION

E. M. LAITALA  
Chairman

CARL T. JOHNSON

ROBERT C. McLAUGHLIN

AUGUST SCHOLLE

HARRY H. WHITELEY



WILLIAM G. MILLIKEN, Governor

DEPARTMENT OF NATURAL RESOURCES

STEVENS T. MASON BUILDING, LANSING, MICHIGAN 48926

RALPH A. MAC MULLAN, Director

January 8, 1971

WATER RESOURCES COMMISSION

STANLEY QUACKENBUSH  
Chairman

JOHN H. KITCHEL, M.D.  
Vice Chairman

RALPH A. MAC MULLAN

JOHN E. VOGT

JOHN P. WOODFORD

GEORGE F. LIDDLE

ALVIN R. BALDEN

Mr. Donald V. Martin  
Vice President - Mill Manager  
Plainwell Paper Company, Inc.  
200 Allegan Street  
Plainwell, Michigan 49080

Dear Mr. Martin:

Enclosed herewith is a preliminary draft of an Order of Determination prepared under the provisions of Section 8 (b), Act 245, Public Acts of 1929, as amended, for the disposal of wastes from a proposed fine printing and technical papers manufacturing operation to be conducted at the former Weyerhaeuser Company Mill at Plainwell, Michigan, described in your statement of December 9, 1970.

In accordance with Commission procedure, we are offering you and other interested parties an opportunity to review the terms of the Order and to submit comments thereto prior to Commission consideration of the matter. It is presently planned to present this Order to the Commission at its meeting on January 21-22, 1971. Comments relative to the proposed use should be received prior to January 20.

Very truly yours,

WATER RESOURCES COMMISSION

*Robert J. Courchaine*  
Robert J. Courchaine  
Regional Engineer

RJC:MS

Enclosure

cc: City of Plainwell  
Allegan County Health Department  
C. D. Harris, Natural Resources  
C. Harvey





STATE OF MICHIGAN  
WATER RESOURCES COMMISSION

Statement of PLAINWELL PAPER COMPANY, INC., :  
a Division of Nicolet Paper Company, a :  
Michigan Corporation, Regarding a NEW USE :  
of the KALAMAZOO RIVER at PLAINWELL, :  
MICHIGAN :

ORDER OF DETERMINATION

WHEREAS, Plainwell Paper Company, Inc., a Division of Nicolet Paper Company, a Michigan Corporation located at 200 Allegan Street, Plainwell, Michigan, has filed with the Water Resources Commission a written statement dated December 9, 1970 for a prospective new use of the waters of the state for disposal of wastes from a proposed fine printing and technical papers manufacturing operation to be conducted at the former Weyerhaeuser Company Mill, 200 Allegan Street, Plainwell, Michigan; and

WHEREAS, the said written statement sets forth that Plainwell Paper Company, Inc., a Division of Nicolet Paper Company, proposes to dispose of approximately one million seven hundred thousand (1,700,000) gallons per day of paper manufacturing wastes and one million five hundred fifty thousand (1,550,000) gallons per day of cooling water into the Kalamazoo River, and fifty thousand (50,000) gallons per day of sanitary sewage into the City of Plainwell's sanitary sewer system; and

WHEREAS, the Commission at its meeting on \_\_\_\_\_, 1971, after giving due consideration to the statement and to investigations by its staff of the factors involved, is of the opinion and has determined that the restrictions and conditions as hereinafter set forth are necessary to protect the waters of the state against unlawful pollution.

NOW THEREFORE BE IT RESOLVED, that it is the order of the Commission that Plainwell Paper Company, Inc., a Division of Nicolet Paper Company, its agents or successors, in disposing of wastes into the Kalamazoo River from a proposed fine printing and technical papers manufacturing operation to be conducted at the former Weyerhaeuser Company Mill, 200 Allegan Street, Plainwell, Michigan, shall comply with the following restrictions and conditions:

1. Process waste waters, represented to be approximately one million seven hundred thousand (1,700,000) gallons per day, shall be treated or controlled in such a manner that when discharged to the Kalamazoo River they shall: